

IN THE CLAIMS:

Please write the claims to read as follows:

1. (currently amended) A wearable hydration system including:

a bladder for holding a hydrating fluid;

tubing for providing a path for the hydrating fluid from the bladder to a mouthpiece or orifice;

a sensor for signaling when the hydrating fluid is flowing from the bladder along the path to the mouthpiece or orifice;

a purification module including one or more solid state UV devices that are positioned in the tubing to provide UV radiation in a germicidal range to purify the flowing hydrating fluid, the UV devices;

i) turning on when the sensor indicates that fluid is flowing from the bladder along the path to the mouthpiece or orifice and reaching a state of UV output in the germicidal range to purify the flowing hydrating fluid as the fluid flows through the purification module; and

ii) turning off when the sensor indicates that fluid is not flowing from the bladder along the path to the mouthpiece or orifice; and

a wearable pack for holding at least the bladder.

2. (original) The wearable hydration system of claim 1 further including a power supply that provides power to the purification module.

3. (original) The wearable hydration system of claim 2 wherein the power supply includes solar cells.

4. (original) The wearable hydration system of claim 2 wherein the power supply includes one or more of batteries, fuel cells, capacitors, solar cells, and windup or crank-type dynamos.
5. (original) The wearable hydration system of claim 4 wherein the power supply includes solar cells that charge one or more of the batteries, fuel cells and capacitors.
6. (original) The wearable hydration system of claim 1 wherein the wearable pack is made of photovoltaic material and the pack supplies power to the UV devices.
7. (original) The wearable hydration system of claim 4 wherein the wearable pack is made of photovoltaic material and supplies power to charge one or more of the batteries, fuel cells, solar cells and capacitors.
8. (original) The wearable hydration system of claim 1 wherein the path through the purification module includes a wider section to allow water to flow unimpeded past the UV devices.
9. (original) The wearable hydration system of claim 8 wherein the path provided through the purification module is sized to provide UV radiation of at least 25 mJ/cm^2 to all of the water flowing past the UV devices.
10. (original) The wearable hydration system of claim 1 wherein the bladder is integral with the wearable pack.

11. (original) The wearable hydration system of claim 1 further including one or more filters to remove sediments from the fluid.

12. (original) The wearable hydration system of claim 1 further including a plurality of solid state UV devices mounted in walls of the bladder.

13. (original) The wearable hydration system of claim 12 further including a user-activated switch to turn on the wall-mounted UV devices.

14. (original) The wearable hydration system of claim 12 further including a switch that turns on the wall-mounted UV devices when the power supply has sufficient power.

15. (currently amended) A purification module for use with a wearable or portable hydrating fluid container, the purification module including

tubing for providing a path for the hydrating fluid from the container;

means for signaling when hydrating fluid is to flow along the path from the container through the tubing to a mouthpiece or orifice;

one or more solid state UV devices that are positioned in the path, either in the tubing, or in the region of the container that is shaped to join the tubing, or both, the UV devices providing UV radiation in a germicidal range to purify the flowing hydrating fluid, the UV devices turning on when the means for signaling signals hydrating fluid flow along the path through the tubing and reaching a state of UV output in the germicidal range to purify the hydrating fluid flowing past the UV devices as the fluid flows through the tubing and turning off otherwise; and

a power supply that provides power to the purification module.

16. (original) The purification module of claim 15 wherein the means for signaling is a water flow sensor.

17. (original) The purification module of claim 15 wherein the means for signaling is a user-operated valve that the user opens to provide water flow.

18. (original) The purification module of claim 17 wherein the valve is a push-pull valve positioned on a top of the container and water flow is initiated by opening the valve and upending the container.

19. (original) The purification module of claim 15 wherein the means for signalling is a user-activated switch.

20. (original) The purification module of claim 15 wherein the power supply includes one or more of batteries, fuel cells, capacitors, solar cells and windup or crank-type dynamos.

21. (original) The purification module of claim 20 wherein the power supply includes solar cells that charge one or more of the batteries, fuel cells and capacitors.

22. (original) The purification module of claim 15 further including a wearable pack for carrying the container and the wearable pack is made of photovoltaic material that supplies power to the UV devices.

23. (original) The purification module of claim 22 wherein the wearable pack supplies power to charge one or more batteries, fuel cells, solar cells and capacitors that are included in the power supply.

24. (original) The purification module of claim 15 wherein the path through the purification module includes a wider section to allow water to flow unimpeded past the UV devices.

25. (original) The purification module of claim 24 wherein the path provided through the purification module is sized to provide UV radiation of at least $25\text{mJ}/\text{cm}^2$ to all of the water flowing past the UV devices.

26. (original) The purification module of claim 15 further including one or more filters to remove sediments from the fluid.

27. (original) The purification module of claim 15 further including a plurality of UV solid state devices mounted in the walls of the container.

28. (original) The purification module of claim 27 further including a user-activated switch to turn on the wall-mounted UV devices.

29. (original) The purification module of claim 27 further including a switch that turns on the wall-mounted UV devices when the power supply has sufficient power.

30. (original) The purification module of claim 22 wherein the container is integral with the wearable pack.

31. (original) The purification module of claim 22 wherein the container is a water bottle.

32. (currently amended) A purification module including

tubing for providing a path for the hydrating fluid the tubing including a first end through which water enters the tubing and a second end through which water exits the tubing;

a sensor positioned in the tubing for signaling when water is flowing into and through the tubing;

one or more solid state UV devices that are positioned in the tubing and provide UV radiation in a germicidal range to purify the water flowing along the path from the first end to the second end, the UV devices turning on to reach a state of UV output in the germicidal range to purify the water flowing through the tubing when the sensor indicates that water is flowing along the path and turning off when the sensor no longer indicates that water is flowing along the path; and

a power supply for supplying power to the UV devices.

33. (original) The purification module of claim 32 wherein the power supply includes one or more of batteries, fuel cells, capacitors and solar cells.

34. (original) The purification module of claim 33 wherein the power supply includes solar cells that charge one or more of the batteries, fuel cells and capacitors.

35. (original) The purification module of claim 32 wherein the path through the purification module includes a wider section to allow water to flow unimpeded past the UV devices.

36. (original) The purification module of claim 35 wherein the path provided through the purification module is sized to provide UV radiation of at least 25 mJ/cm^2 to all of the water flowing past the UV devices.

37. (original) The purification module of claim 32 further including one or more filters to remove sediments from the fluid.

38. (currently amended) A water filtration system including:

one or more filters positioned for removing sediment from the water;

tubing for providing a path for flowing water;

a pump for introducing water to the tubing;

a purification module including one or more solid state UV devices that are positioned in the tubing and provide UV radiation in a germicidal range to purify the water flowing along the path, the UV devices operating intermittently to turn on to reach a state of UV output in the germicidal range to purify the water as the water flows through the purification module when the pump introduces water to the path and turn off upon determining that when water flow has ceased ceases along the path; and

a power supply for providing DC power to the UV devices.

39. (previously presented) The water filtration system of claim 38 wherein the power supply converts energy associated with the pumping action of the pump to DC power for use by the UV devices.

40. (original) The water filtration system of claim 38 wherein the power supply includes one or more of batteries, fuel cells, capacitors, solar cells and windup or crank-type dynamos.

41. (original) The water filtration system of claim 40 wherein the power supply includes solar cells that charge one or more of the batteries, fuel cells and capacitors.

42. (original) The water filtration system of claim 38 wherein the path through the purification module includes a wider section to allow water to flow unimpeded past the UV devices.

43. (original) The water filtration system of claim 42 wherein the path provided through the purification module is sized to provide UV radiation of at least 25 mJ/cm^2 to all of the water flowing past the UV devices.

Please insert the following new claims, 44 *et seq.*:

44. (new) The purification module of claim 1, wherein the UV output provides energy of at least 25 mJ/cm^2 to the fluid flowing through the purification module.

45. (new) The purification module of claim 15 further including means for limiting the hydrating fluid flow to allow purification of the flowing hydrating fluid.

46. (new) The purification module of claim 45 wherein the means for limiting is configured to limit the hydrating fluid flow when the power supply is unable to provide sufficient power to the UV devices to provide UV radiation in the germicidal range to allow purification of the flowing hydrating fluid.

47. (new) The purification module of claim 32 wherein the purification module is arranged as a drinking straw.

48. (new) The purification module of claim 1 wherein the solid state UV devices turn on to reach the state of UV output in the germicidal range within one millisecond, and turn off when the sensor indicates that fluid is not flowing within one millisecond.